

Diag. Cht. No. 6102-1 & 6002-2
Form 504
U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE
-
DESCRIPTIVE REPORT
Type of Survey Sydronaphic
Field No. Office No. 57/14
Field No. Office No.
LOCALITY
State ashington.
General locality Coast
Locality Sealon
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194, 3.0
CHIEF OF PARTY
LIBRARY & ARCHIVES
DATE

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Form 504 Ed. June, 1928 DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY	
LIB	AST & GEODETIC SURVEY RARY AND ARCHIVES
State: WASHINGTON	MAY 11 1931
DESCRIPTIVE REPORT	
TOPOSTATION Sheet No. 121 5114	
LOCALITY	1 0 1
OFF - SHORE, WASHINGTON COAST	
SAPE ELIZABETH TO TATOOSH ISLAND	
Pacific Coast	
Sealion Rk. to Cape Flattery - Off Shore	
19.30	
CHIEF OF PARTY	
K. T. Adams, H & G Engineer, C & G S	







DEPARTMENT OF COMMERCE

U. S, COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 121

REGISTER NO. 5114
State Washington
General locality Off Shore Pacific Coast Scaling Rk. to Cape Flattery - Offshore
Sealion Rk. to Cape Flattery - Offshore Locality Cape Flizabeth to Tatoosh Island
Scale 1:120,000 Date of survey 7/16 - 10/10 , 1930
Vessel GuidE
Chief of Party K. T. Adams
Surveyed by K. T. Adams
Protracted by H. A. Karo
Soundings penciled by H. J. Healy & J. C. Mathisson
Soundings in fathoms feet
Plane of reference MLLW
Subdivision of wire dragged areas by
Inked by
Verified by
Instructions dated April 16, 1930
Domonitor :

U. S. SOVERNMENT PRINTING OFFICE: 1929

DESCRIPTIVE REPORT to accompany HYDROGRAPHIC SHEET NO. 121 Washington Coast

DATE OF INSTRUCTIONS: Work executed on this sheet was done in compliance with instructions for Project No. 159, dated April 16, 1930.

SCALE AND LIMITS: The scale of the sheet is 1:120,000 and the work extends from the 1927 work of the Steamer GUIDE, northwest to about Latitude \sim 480 20°, and from a junction with the inshore 40,000 scale sheets offshore to the 1000 fathom curve.

CONTROL: The principle control used on this sheet was radio acoustic ranging. Visual fix control, on 40,000 scale sheets, was carried about 10 miles offshore, which was considered about the limit. However, during certain spells of unusually clear weather it was possible to carry shore objects much farther and the R. A. R. work will be found supplemented by fixed position work. This will be found especially true in two areas, the inshore portion of the southern part of the sheet just off Destruction Island and offshore from White Rock.

It will be noticed that the R. A. R. work is roughly divided into two areas, at about Longitude 125° 50°. This was advisable for three reasons, first-work was done on the boat sheet in two sections (A and B); second- the spacing of the lines changes at this point; and third-when shore parties were operated from the ship it was impossible to run to the 1000 fathom curve and return in one working day.

In general then, the offshore work was done at convenient times, and when good weather was predominant, by running to the offshore area and working there all day, drifting throughout the night.

FATHOMETER: The Fathometer was used throughout to take soundings, supplemented by the necessary number of vertical casts. The Fathometer was read by an officer, red light was carried on an average to about 400 fathoms, beyond which depth white light was used. No use whatsoever was made of the new co-incidence method. At times red light times six was used, in other words the automatic red light return was used on a long signal and slow speed. At times it was possible to use this up to 700 or 800 fathoms but it was generally necessary to keep check on it by the white light.

CORRECTIONS TO FATHOMETER SOUNDINGS: Fathometer soundings were corrected throughout all the depths for the velocity of sound and the sheet was examined for slope corrections by the latest approved method.

RADIO ACOUSTIC RANGING: At the beginning of the season the weather was unusually good for visual control and this type of control was advanced to the exclusion of work done by R. A. R. However, one R. A. R. station was installed on June 5th at Destruction Island, with which experiments were made to determine it's reliability. It was not until the hydrophones had

been moved twice that the station worked satisfactorily. On July 10th a station was established off James Island and these two stations only were used on the southeastern part of the area. On October 2nd a third station was established on Tatoosh Island and from thence till the end of the season these three stations were maintained.

In general I think reasonably good results were obtained from this type of control. Quite often returns were received from only two stations, but it is especially notable that in the area farthest offshore, when large cast iron bombs were fired, the results were very gratifying. In the large portion of the area returns from all three stations were received with regularity.

During the season various forms of trouble were encountered of course, and these will be found discussed in a separate report attached to this descriptive report.

VELOCITY OF SOUND: Throughout the season various tests to determine the velocity of sound were made, a tabilation of which will also be found attached to this report. It must be taken into consideration that these tests were necessarily made fairly close inshore with the path of the sound more or less parallel to the shore line and in comparatively shallow depths. The average for all of these tests was about 1476 meters per second and inasmuch as they showed no conclusive evidence of change as the season progressed this figure was used for all inshore R. A. R. determinations.

In order to determine the velocity of sound in offshore areas various positions in which three returns were obtained were used graphically to determine the average velocity for this area. In all about 30 of these positions were graphically determined, the results of which will be found on the boat sheet in red crayon figures near the position.

The velocities actually used in plotting the smooth sheet were as follows: For the area coming within the limits of Boat Sheet A, 1476 was used. For the area within the limits of Boat Sheet B velocity 1473 was used, outside of 900 fathoms, and inside of 900 fathoms 1474.5 was used.

BOAT SHEETS: Two boat sheets, A and B, were used in this area, although all work was plotted on one smooth sheet. It was considered, at the beginning of the season, impracticable to put the entire area on one sheet. The velocity used for the construction of the circles on Boat Sheet A was 1477.5, whereas the velocity used for the construction of the circles on Boat Sheet B was 1472. On the boat sheet will be found, indicated in green ink with the depth encircled, the vertical casts which were taken in this area.

METHOD OF PLOTTING: In plotting this sheet all R. A. R. positions were plotted first. The dead reckoning was then plotted on tracing paper and fitted to the R. A. R. positions. From this dead reckoning it was possible to determine what positions were incorrect in the case of a lag in the operation of the shore stations due either to hand manipulation by the operators, by strays, or by any other causes. After the incorrect bomb

-Page 3-

positions were eliminated the dead reckoning was then fitted to the \sim correct bomb positions and plotted on the smooth sheet.

In some cases, especially in depths of less than 100 fathoms, soundings were obtained more often than could be conveniently shown on the smooth sheet, in which cases every other sounding was put on the smooth sheet.

K. T. Adams, H & G Engineer

Chief of Party

STATISTICS.
Sheet No. 121.

	1	Day	SOUNDI	NGS	VC.	Statute	No. of	Vol
			Red Light	White Light		Miles	Positions	
	7/16/30	A	209		4	57.5	58	1
	7/18/30	В	325	3	2	107.1	143	1
	7/20/30	C	283		1	91.4	69	1
	7/22/30	D	3 4&		2	109.8	89	1
	7/23/30	E	59			17.8	14	1
	7/23/30	E	309			96.2	85	2
	Sub-Tota	1	1,569	3	9	479.8	458	
	8/5/30	F	331		1	78.3	72	2
	8/6/30	G	175		1	34.5	49	2
	8/12/30	H	329		1	97.7	60	2
	8/13/30	J	394		3	115.5	75	2-3
	8/15/30	K	78		1	19.0	20	3
	8/19/30	Ĺ	46		*****	9.0	10	3
	8/25/30	M	272	138	2	132.0	82	3
	8/26/30	N	427	8	1	154.5	52	3
	8/27/30	P	279		2	95.5	48	3-4
	Sub-Tota	1	2,331	146	12	736.0	468	
36	9/3/30	ચ	388	1	3	129.0	80	4
	9/4/30	R	410		2	127.1	95	4
	9/5/30	S	222			60.4	39	4
	9/7/30	T	453		3	120.8	88	4
	9/9/30	บ	345		2	94.1	70	4-5
	9/10/30	V	269		4	56.4	41	5
	9/18/30	W	384		1	93.2	62	5
	9/19/30	X	218			65.6	52	5
	9/20/30	Y	348	18		153.0	66	5
	9/21/30	Z	350	7		113.7	51	5-6
	SUB- Tot		3,387	26	15	1,013.3	644	
	9/23/30	AA	265		1	77.0	51	6
	9/25/30	BB	141		1	33.2	33	6
	9/29/30	CC	273			32.2	49	6
	10/8/30	DD	327		1	65.2	50	6
·	10/9/30	EE	370	14	1	115.8	64	6
	10/10/30	FF	173			54.6	31	6-7
	TOTAL		1,549	14	4	378.0	278	
	TOTAL		8,836	189	40	2,607.1	1,848	

TEMPERATURE AND SALINITY DATA.

Temperature and salinity data was forwarded to the Office the first week of November, 1930.

Fathometer Velocity Corrections

Sheet No. 121

DEPTH	REDUCER	DEPTH	REDUCER
0-6.5 Fms	Q.O Fms	412-468	7.0
6.5-31.0	0.1	4 68 - 526	8.0
31.0-39.0	0.2	526-582	9.0
39.0-46.5	0.3	582-627	10.0
46.5-54.5	0.4	627-670	11.0
54.5-62.0	0.5	670-712	12.0
62.0-70.0	0.6	712-755	13.0
70.0-77.5	0.7	755-800	14.0
77.5-85.0	0.8	800-840	15.0
85.0-92.0	0.9	840-882	16.0
92.0-100.0	1.0	882-925	17.0
100.0-109.5	1.1	925-968	18.0
109.5-117.5	1.2	968-1008	19.0
117.5-125.0	1.3	1008 -105 2	20.0
125.0-132.0	1.4	105 2-1 090	21.0
132.0-140.0	1.5	109 0-1125	22.0
140.0-147	1.6	1125-1162	23.0
147-154	1.7	1162-1210	24.0
154-161	1.8		
161-168	1.9		
168-186	2.0		
186-244	3.0		
244-300	4. 0		
300-355	5.0		
355-412	6.0		

VERIFICATION REPORT to accompany Hydrographic Sheet No.121 Washington Coast.

This will certify that I have examined the completed smooth sheet and records and hereby approve same. The field work was done under my constant supervision and the officers with most experience at this type of work were in charge of the plotting and the instructions to the bridge.

K. T. Adams,

Commanding, Steamer GUIDE,

Chief of Party

KTA/h

DEPA FOR COMPUTING INDEX CORRECTIONS

June 3, to October 11,1930

		•				j i	
Date	Fathometer	Temp. and	Corr. Fath.	VC	VC	Fathom	e- Remarks
	w _e	Salinity				ter	
		Correction					
6/3	12.8	0.1	12.7	13.8 N	+0.6 R		
	12.6	0.1	12.5	13.3 S	+0.8 R		
	13.0	0.1	12.9	13.0 S	+0.1		
•	12.6	, 0 .1	12.5	13.3 S	+0.8 R		
	12.7	0.1	12.6	12.8 S	+0.2		•
C	12.6	Q.1	18.5	12.8 S	+0.3		
	12.8	0.1	12.7	12.8 S	+0.1		and the second second
	12.8	0.1	1877	13.0 S	+0.3	•	the second second
	15.3	0.1	15.2	15.3 VC	+0.1	· · · · · · · · · · · · · · · ·	
6/6	15.2	0.1	15.1	15.28	+0.1		•
	15.3	0.1	15.2	15.58	+0.3		
	15.5	0.1	15.4	15.3 S		-0.1	
	15.5	0.1	15.4	15.8 S	+0.4.		
	15.5	0.1	15.4	15.2 S		2.0	*
	15.2	0.1	15.1	15.0 8	- a n	-0.1	•
	15.6	0.1		16.7 NG	+1.2 R		
	16.0	0.1	15.9	15.8 S		-0.1	\$
	15.5	0.1	15.4 h	15.8 S	+0.4		· · · · · · · · · · · · · · · · · · ·
	15.8	0.1	15.7	15.8 S	+0.1		•
	15.5	0.1	15.4	15.3 S		-0.1	
6/11	15.2	0.1	15.1	15.3N	\$.0+		,
	15.5	0.1	15.4	16.0 N	+0.6 R		
	15.8	0.1	15.7	16.5 N	+0.8 R		
	16.2	0.1	16.1	17.0 N	+0.9 R		
	21.2	0.1	21.1	22.0 VC	+0.9 R		
	25.0	0.2	24.8	25.8 VC	+1.0 R		Sdgs. rejected
	22.5	0.1	22.4	24.0 VC	+1.6 R	•	when on N'ly o
	23.0	0.1	22.9	23.3 VC	+0.4		course as hand
	13.5	0.1	13.4	14.5 N	+1.1 R)		lead work shows
	14.0	0.1	13.9	14.8 N	+0.9 R)		deep readings in
	13.8	0.1	13.7	14.7 N	+1.0 R)		all cases on
	13.2	0.1	13.1	14.0 N	+0.9 R)	-1	Sheet 41.
	13.3	0.1	13.2	14.3 N	+1.1 R) +1.0 R)	\.`	
	13.3	0.1	13.2	- x + c			W's rejected
	12.0	0.1	11.9	12.8 N	+0.9 R)	1	evidently not up
				•		- 1	and down due to
				*		\ \	strong current.
			•				Period 7:27 to
• •						V.	7:51 AM Record
		•	Ý		-	Ī	on slip in Vol
					<i>7</i> 0	A	#1 - 41
	· .		Service of the servic		Prot.	1,40,00	o phoet
		· · · · · · · · · · · · · · · · · · ·			ne en la comp		705

Date	Fathometer	Temp. and Salinity Correction	Corr. Fath.	VC	VC	Fatho- meter	Remarks
6/12	16.0	0.1	15.9	16.5	+0.6J		
6/13	15.5	0.1	15.4	16.0 N	+0.6		
	14.5	0.1	14.4	16.0 N	+1.6 R		
	15.0	0.1	14.9	15.0 N	+0.1		
	14.5	0.1	14.4	15.0 N	+0.6		
	25.0	0.2	24.8	26.1 VC			
6/14	17.2	0.1	17.1	18.3 N	+1.2 R		
	$\frac{17.2}{17.0}$	0:1	17.1 16.9	17.2 N 15.0 N	40 . 1	-1.9 R	
	14.8	0.1	14.7	15.0 VC	+0.3		
6/15	28.5	0.2	28.3	28.5	+0.2		
	28.2	0.2	28.0	28.5 VC	+0.5		
6/17	12.4	0.1	12.3	13.5 N	+1:2 R		
	12.6	0.1	12.5	13.0 N	+0.5		
	12.8	0.1	12.7	13.0 N	+0.3		
	22.2	0.1	22.1	23.0 VC			
	12.0	0.1	11.9	12.0 🕭	+0.1		
6/18	9.6	0.0	9.6	9.2 VC	aligne i distributioni in anticonggittadhi anticon	-0.4	
6/19	16.2	0.1	16.1	16.8 VC			
	11.5	0.1	11.4	12.0 J	+0.6		
6/26	12.5	0.1	12.4	12.5 J	+0 . 1		
- /	531	8.0	523.0	523.5 VC			
6/27	19.0	0.1	18.9	19.2 J	+0.3		
7/1	19.0	0.1	18.9	17.8 VC		-1.1 R	
	21.8	0.1	21.7	21.3 VC	. 0. 4	-0.4	
	21.2	0.1	21.1	21.7 VC			
	11.0	0.0	11.0	10.5 I	+0.5		
	15.8	0.1	15.7	16.0 VC			
	30.0	0.2	29.8	29.8 VC	+0.0	0.4	
7/1	13.0	0.1	12.9	12.5 I		-0.4	
(/1	16.0 30.0	0.1	15.9	15.8 VC		-0.1	
	12.2	0.3 0.0	29.7 12.2	29.8 VC 12.7 VC	+0.1 +0.5		
7/2				Use -	0.3		
7/2 7/3	18.0	0.1	17.9	17.5 VC		-0.4	
.,-	14.8	0.1	14.7	14.4 VC		-0.3	
7/8	12.4	0.1	12.3	13.0 J	R +0.7R)		
•	10.8 39.7	8:4	10.8 39.3	11 2 VC 39:6 VO	+8: 4		
121.7		0.4		39.6 VD	+0.3		
5/0,0	40.0	0.4 0.1	39.6	40.2 VC	+0.6		-
7/9	16.5	0.1	16.4	16.3 I		-0.1	
7/11	17.0	0.1	16.9	16.7 J	. 0. 7	-0.3	
	16.8	0.1	16.7	17.0 J	+0.3	0.3	
7/16	17.0	0.1	16.9	16.8 J		-0.1 -0.6	
7/16	42.8 45.0	0.3	42.5	41.9 VC		-0.6 -0.2	
	45.0	0.3	44.7	44.5 VC			
	44.2	0.3	43.9	43.7 VC		-0.2	
D /s =	45.2	0.3	44.9	45.0 VC			
7/17	19.8	0.1	19.7	19.8 VC			
	20.2	0.1	20.1	20.2 VC			
	19.5	0.1	19.4	19.5 VC			
	17.2 1 2.5	0.1	17.1 12.4	17.2 J 13.0 S	† 0.1 +0.6		
	14.2	0.1	14.1	13.5	, 5.5	-0.6	

ate	Fathometer	Temp. and Salinity Correction	ctions continued) Corr. Fath.	VC VC	Fatho- meter.	Remarks
7/18	17.8	0.1	17.7	18.0 J +0.3		
/18		0.1	22.4	23.0 VC +0.6		
	22.5	0.5	60.5	61.0 VC +0.5		
	61.0		16.9	17.0 VC +0.1		
	17.0	0.1 0.1	24.4	24.8 VC +0.4		
7/10	24.5	0.1	16.0	15.5 J	-0.5	
7/19	16.1	0.1	17.7	17.5, VC	-0.2	
7/20	17.8	0.6	62.4	63.0 VC +0.6	0	
7/20	63.0	5.0	278.0	283.0 VC +5.0		
7/22	282 (x6) 535	9.0	526	526 VC +0.0		
//23	43.8	0.3	43.5	45.9 VC +2.4	R	
1/20		1.0	93.2	94.8 VC +1.6		
7/04	94.2	0.2	32.6	32.8 VC +0.1		
7/24	32. 8	0.2	11.9	11.5 J	-0.4	
	12.0	0.1	18.1	18.3 VC +0.2		
	18.2 16.3	0.1	16.2	15.8 VC	-0.4	
2/20		0.1	16.7	16.8 VC +0.1		
7/30	16.8 19.0	0.1	18.9	19.0 \$\bar{\pi}\$ +0.1		
		0.1	14.9	16.0 VC +0.1		
	15.0	0.1	17.9	18.0 VC +0.1		
	18.0	0.1	17.7	17.5 I	-0.2	
0/03	17.8	0.2	34.0	34.3 VC +0.3		
7/31	34.2		46.4	47.0 VC +0.6		
	46.8	0.4	19.9	19.8 I -0.1		
5/5	20.0	0.1).2 on 8/3	70,00 0 047		
8/3			63.9	64.4 VC +0.5		
8/4	64.5	0.6	18.9	18.7 -0.2		
8/5	19.0 18.5	0.1	18.4	18.2 J	-0.2	
8/5	18.2	0.1	18.1	18.1 J +0.0		
8/6	16.1	0.1	16.0	16.0 J +0.0		1-c 43
0/0	26.0	0.1	25.9	26.3 VC +0.4		
	78.0	0.8	77.2	77.0 VC - 0.2		
8/7	25.0	0.1	24.9	25.1 VC +0.2		
0/ /	76.0	0.7	75.3	75.9 VC +0.6		
	33.6	0.2	33 • 4	33.7 VC +0.3		
	25.4	0.1	25.3	25.4 VC +0.]		
8/12	40.2	0.3	39.9	40.2 VC +0.3		
U) 12	211.5	3.0	208.5	212.0 VC +3.5		
8/13	62.0	0.6	61.4	61.6 VC + 0.2		
0/10	95.0	1.0	94.0	94.5 VC +0.5		
	173.5	2.0	171.5	172.8 VC +1.5		
	18.6	0.1	18.5	18.8 VC +0.		
8/15	51.0	0.4	50.6	51.1 +0.5		
8/19	15.5	0.1	15.4	15.5 J +0.		
O/ T8	19.3	0.1	19.2	19.5 VC +0.		
	46.5	0.4	46.1	46.4 VC +0.		
	46.2	0.4	45.8	46.3 VC +0.		
	18.3	0.1	18.2	18.0 I	-0.2	
8/20	35.8	0.2	35.6	36.0 VC +0.	4	
0/20	18.8	0.1	18.7	18.9 VC +0.		•
		0.2	32.6	33.0 VC +0.		
	32. 8	0.1	19.7	1915 VC	-0.2	
	19.8 18.5	0.1	18.4	18.7 VC +0.		

Date	Fathometer	Temp. and Salinity Correction	Corr. Fath.	▼C	VC	Fatho- meter.	Remarks
8/21	17.5 18.4	0:1	17.4 18.3	19.20	C +0.3 +0.9		
	24.0	0.1	23.9		VC+1.5	R	
	32.3	0.2	32.1		VC-0.1		
	18.8	0.1	18.7		AC+0.0		
- /	18.2	0.1	18.1		$\frac{I+0.4}{1}$		
8/22	17.4	0.1	17.3		T+0.2	0.0	
0/07	19.3	0.1	19.2	19.0	VC+0.0	-0.2	
8/23	18.6 17.9	0.1 0.1	18.5 17.8		W +0.2		
	11: 2	8 : 1	1 3:9		B #8:1		
	19.5 13.5	0.1	19.4 13.4	19.5	D +0:1		
	11.2	0.1	11.1		D +0.2		
	10.5	0.0	10.5		D +0.3	-0 5 P	Bottom
8/24	10.5	0.0	10.5 18.1	10.0	$\frac{D}{J}$ -0.4	-0.5 R	very un-
							even
8/25	116.0	1.3	114.7		VC +0.3	0	
	15.5	0.1	15.4		VC+0.1		
8/26	486.0	8.0	478.0		VC+3.0		
8/27	92.0 20.0	1.0 0.1	91.0 19.9		VC -1.0 I +0.1	?	
9/2	17.8	0.1	17.7	17.3		-0.4	
	17.8	0.1	17.7	17.3	N	-0.4	
	18.0	0.1	17.9	17.7		-0.2	
	18.0	0.1	17.9	17.8		-0.1	
	18.5	0.1	18.4	17.8		-0.6 R	
	18.8	0.1	18.7	17.8		-0.9 R	
2/2	18.8	0.1	18.7	18.7		0.0	
9/3	48.6	0.4	48.2		VC 0.0	_	
~/4	108.0	1.1	106.9		VO1.1		
9/4	61.5	0.5	61.0	60.7		-0.3	
	80.1	0.8	79 . 3	79.2		-0.1	
9/5	20.8	0.1 ting changed	20.7 ·	19.2	$\frac{\psi}{}$	-1.5 R	
9/0	18.5	0.1	18.4	105	<i>I</i> +0.1		
	31.0	0,42	30.8	30.6		0.2	
9/7	106.0	1.1	104.9		VC+0.4	, 0.2	
-, .	51.0	0.4	50.6		VC+0.4		
	80.2	0.8	79.4		VC+0.8		
9/8	13.2	0.1	13.1		J+0.2	<i>/</i>)	
•	14.8	0.1	14.7		J 0.0		
9/8 9	77.0	0.7	76.3		VC 0.0		
	18.2	0.1	18.1	18.0		-0.1	
	19.6	0.1	19.5		J 0.0		
9/10	19.6	0.1	19.5	19.3		-0.2	
•	273.5 770 (KTA)	5.0	269.5	269.2	VC	-0.3	
	770 (RIX6)	14.0	756	743 VC		-13.0 R	•
	765 (HAR)	14.0	751	743 VC		-8.0 R	
	20.5	0.1	20.4	20.0	T	-0.4	

(Data for	computing	index corrections	continued)	-5-	
9/11	19.5	0.1	19.4	19.0 J -0.4	
	25.0	0.1	24.9	24.5 VC -0.4	
	20.3	0.1	20.2	20.0 T -0.2	
9/12	20.4	0.1	20.3	20.3 T 0.0	
	20.8	0.1	20.7	31.0 VC+0.3	
	22.3	0.1	22.2	22.0 VC -0.2	
	23.3	0.1	23.2	22.7 VC -0.5	
	19.4	0.1	19.3	19.0 ♥ -0.3	
9/18	18.8	0.1	18.7	18.7 t 0.0	
9/19	19.5	0.1	19.4	19.7 <i>U</i> +0.3	
9/20		Use 0.2 on 9	/20	·	
9/21	20.2	0.1	20.1	20.3 yc+0.2	
/22		Use 0.2 on 9	/22		
v/23	162.0	1.9	160.1	159.0 _{VC} -1.1 R	
9/24	17.4	0.1	17.3	17.3 J 0.0	
	18.7	0.1	18.6	18.5 J -0.1	
9/25	8.5	0.0	8.5	8.3 t -0.2	
9/28	38.5	0.3	38.2	388.0 V.C0.2	
9/29			9/29		
10/4	16.6	0.1	16.5	16.5 t +0.0	
	13.8	0.1	13.7	13.8 S +0.1	
	13.5	0.1	13.4	13.8 S +0.4	
	12.8	0.0	12.8	13.2 S +0.4	
	12.2	0.0	12.2	12.3 S +0.1	
	13.0	0.1	12.9	12.8 S -0.1	
	13.0	0.1	12.9	14.2 S +1.3 R	
	13.0	0.1	12.9	13.3 S +0.4	
	13.2	0.1	13.1	13.2 S + 0.1	
	14.0	0.1	13.9	13.5 S -0.4	
	14.0	0.1	13.9	14.3 SHO.4	
	17.0	0.1	16.9	17.0 S +0.1	
	12.0	0.0	12.0	11.8 5 -0.2	
	15.2	0.1	15.1	15.0 t -0.1	
10/8	64.0	0.6	63.4	64.3 VC+0.9 R	
10/9	53.8	0.4	53.4	53.0 VC -0.4	
10/10	24.8	0.1	24.7	24.5 VC -0.2	
10/11	26.8	0.1	26.7	26.8 +0.1	

INDEX CORRECTIONS Sheet No. 121

June 3 to 15th	0.2 Fms.
June 17 to 27th	0.3 Fms.
June 27 to July 9th	0.0 Fms.
July 9 to 16th	- 0.1 Fms.
July 17 to 30th	0.1 Fms.
July 31 to Aug 27th	0.2 Fms.
Sept 5 to 9th	0.1 Fms.
Sept 10, to 29th	- 0.2 Fms.
Oct. 4 to 11th	0.0 Fms.

LIST OF SIGNALS.

Sheet No. 121 .

Name	Hydrographic Name	Location from:
Tatoosh Lt. House	Toosh	Triangulation 1893
Peak No. 1	One	Triangulation 1913
Peak No. 2	Two	Triangulation 1913
Peak No. 3	Three	Triangulation 1913
Peak No. 4	Four	Triangulation 1913
Peak No. 8	Eight	Triangulation 1913
Father	(Same)	Triangulation 1930
Port	(Same)	Hydrographic location
Peak B	B	Triangulation 1913
Slant	Same	Triangulation 1930
Bode	Same	Hydrographic location
White Rock	White	Triangulation 1930
Bite	Same	Hydrographic location
Carroll Island	Carro	Triangulation 1913
Cake	Same	Topographic location
Ellis	Same	Triangulation 1913
Round-	Same	Topographic location
Hoh	Same	Triangulation 1913
North Rock	North	Triangulation 1914
Bull Hill	B ull	Triangulation 1914
Destruction Id. Lt.	Truc	Triangulation 1914
Peak 8	Same	Triangulation 1914
Gape	Same .	Hydrographic location
Rags	Same	Hydrographic location
Beth	Same	Hydrographic location
Boulder Hill	Boulder	Triangulation 1914

Pate	e No	Time	Scaled Dist. in Meters v.	Corr. for Distortion	Corr. for "Ecc."	True Distance in Meters	Net Time in Seconds	Velocity	Scaled Dist. in Meters	Corr. for Distortion	. " Bec. "	True Disti in Meters.	in seconds	Velocity	Scaled Dist.	Corr. for	Corr. for	True Dist.	Net Time	Velocit
6/16	6 (3	(1)	12,499.2		?		8.54	1464 *		20" fuse (No mention of	speed of ship or	time of days		in Meters	Distortion	" Ecc."	in Meters.	in Seconds	1
	(2	2) [12,089.0 11,379.0	ngagin ngaliningan sagan ngagin ngaganggan ngan ngan ngah nadhi hilika sagan ngawanawanaki nadh			8,23	1468 *			These computati	ions based on as	saumption ship		andina dinage (rephispologypapaday). Allowide in Allowide (rephispology) and a secundary of the rep	erafferingen fan eric en ; ger sjemane sjælete en in infletione managesiaan.				
	. (3	3)	11,379.0		2	-specialistic states of the states of the specialistic states and the states of the states of the states of the	7.75	1470 *	en samme till menter i menter mellem skille mellem mellem stamme till stamme till skille mellem mellem mellem	15" fuse (was stopped du	ring tests		ten ann an an an ann amhairt an	office and administration of the control of the con	onemaanse kon skin debraden viitterappiilijan een siit radanabeeljin een s qe digen		The control of the co	menter entalle ir lätte regles traders sellete ongenenen engissensperansperansperansperinsperins en villet sydner siddenside, reglese inden engine vill urspat vanderspelle undlike sellet ender ender ender e	
6/17	7 (1	78)	35,256.2	35,230.1		35,230.1	23.865	1476.2			Printer Mikropitaresile sulpassiler selle ingestilen underskensvilletissenskinsen				Heffer after the control of the cont	antijan jaka da jaka da jaka da jaka da jaka da jaka jak	ellekkara – valant tellekkarapit i alam sa lap teraktur telekkarapitat telektur palat telektur palat telektur Bernalikar palat telekt	en e	o lang ta daga kalaman kalamanan kalamanan kalaman kalaman kalaman kalaman kalaman kalaman kalaman kalaman kal	The same of the sa
and and a	(2:		36,451.8	* 36,425.7		34,425.7	24.674	1476.3		t or a state of the first of the state of th		Allen egit en		And the second s	CONTROL STORM STORMAN S			A season season respectively company approximate control of the company and the company of the c		
	(1)	30)	36,741.0	36,715.0	te-manyagai-galangan-gan-ughand-alaminah-in-in-manyagan-anan-nomer may may - ya	38,715.0	24.960	1470.9			Minister of Special Minister and another of the Adequation of the second section of the second second section of the second seco				Allen Maradia (Allen Alpha) (Assar Assar Ass Assar Assar As	The same and the s	Minimizera da mada mada kada kada minimizera da maga mada maga mada maga mada maga mada mad		 The second second	rpool volken volt-volken volken kallen k Provide dyskrevninge reppenynsystystystyskin kallen
6/25	5 (3	3) 7:05	27,368.0	27,371.4	- 31.2 ?	27,340.2	16,587	1474.9							anterior (1996) (1996) (1996) (1996) (1996) (1996) (1996) (1996) (1996) (1996) (1996) (1996) (1996) (1996) (19 (1996)	maken agen and a sale of the s	Minimum (1967) - No. (1967) - N	a dalah salah kapin sejeri bermasa bermasa dalah sejak salah salah sejak salah sejak salah sejak salah sejak s	The contract best of the state statement of the statement	Саве и прозветствани места пристем податучного пристем
	{.	4) 7:08	27,602.8	27,806.2	- 31.2 ?	27,775.0	18.786	1478.3					The state of the s	The difference of the second s	The state of the second control of the second state of the second	- Markaning - San	B. AND THE CONTRACT OF THE CON		enterente de la company de la	
		5) 7:10 6) 7:27	28,227.8	28,231.2	- 31.2 ?	28,200.0	19.065	1479.1			Madilla aprilia de ingripo i de reconstiga des replanados replanados replanados de la compansión de la compa		S STATE OF THE PARTY OF THE PAR	And rathronia special collections	and a state of the control of the co	The latter of th	an a state of the transport of the control of the c	w.	The second secon	the second of the second
	- (6) 7:27	32,243.6	32,247.3	- 31.2 ?	32,216.1	21.790	1478.5							titeren kasallarutikan etainetain satu silajan missi satu valta silaka etainetain satu haisi satu eta silajan missi satu	1967 - S. Br., M. British, Stradt. Springer, addition of property serving the spring spring.	ge og en sportlikke skillet til kleiner om mellen skiller være i sjerre sætterske i ste av	de region i confide regioni anti-com construire de la con	and a company and a company of the c	WG - Jon St. V. A PM, on Blocker of Manager
8/4	(1) 1:35½ 2) 1:39½ 3) 1:44½		62,874.6	12.0	61.886.6	42.69	1473.0				Militaringi etti elikerinin elikerinin teta 1 yap egyerini. Letta 1 yapanishida il	and common representation depth resigns . I disconsistent in proceedings a respectively resignation and					remont accepte to the contract of the contract	and the second second departs planting to a call a self-transfer and a sep- plant when the second	with widths differentially control of representative control
	(;	2) 1:392												Martine and the second	the control of the co	(34,313,7)	9.1	34,322.8	23.28 23.23	1474.
١ ـــــ		3) 1:441		62,525.8	12.0	62,537.8	42.44	1473.6	29,534.0	29,569.0	34,3	29,603.3	20.09	1473.6	de la companya del companya de la companya del companya de la companya del la companya de la com	(34,198.6)		34,207.7	23.23	1472.0
		4) 1:50		62,330.3	12.0	61,342.3	42.35	1472.0	31,011.2	31,045.8	34,3	31,080.1	21.09	1473.6 1473.7		(34,121.2)	9.1	and the above the contract of	24.39	
2/20	_ /,														aller (Campberle) - del (Caples deprivate) (1988/miller militates - 47 - marriagne mario) (Se - place labor militare la pro-	(34,073.4)	9.1		21.82	10.2
0/85	Z	*	and the state of t	adalase. Die reterredir ingeringsprinklikeliferinden ellerligen Age, Alexandria tillfrindlich d	gian gilandika ngan njarandarandarandarandarandarandaran (dari salah salah ngan-sam-sama-sama-sama-sama-sama-s			i de la calacteria del	26,961.2	26,956.0		26,956.0	18.260	1476.2	(32,278.2)		nakon dh. dhu odh alako japandilaynyo nakoalay cako yaqe asy.			
		6/	g v. javí sakri. Vajvosjagovanajoskogo v jako sense sejnes senterektérséjtáséntér v nassejhektéjher költ.	paper Marchine - Marchine Community of the Community of t	gypon go-aphyn glyny yllan-agono grennydgo nabb nago n-tiny napo , the endernationiane -intelleditentig	entime also replik kinde sekke (1986–1990–1990–1990–1990 a same asme kame (1996–1996–1996), populi por	ggerneles differenties alpus als es que a play sin collidar.	r yang in salahakan salah salah pinga maja maja maja kasalah salah salah salah salah salah salah salah salah s	27,091.0	27,085.8		27,085.8			(33,069.2)			(32,278.2)	21.880	1475.2
-		3) 4)						The second secon	27,281.4	* 27,276.2		27,276.2	18.485	1475.6	(33,901.6			33,069.2	22.380 23.005	1477.6
		#/ #		proper y manufacture de la proper de superior de la viere i relien nudes o que a o principarent telebrati.	dand of reliable to the property of the control of	nergen (- 17 - 1971) - million tiller störrögingen i rögen – sår si agen regen sensermakker saglage gamen alle kradien			27,491.6 28,327.6	27,486.4		27,486.4	18.580	1479.4				33,901.6	23.005	1473.6
		27	mara mantana mandaningan manda ngang nganang per-adah maliken mga pelabah miliken yaken dalah miliken dalah miliken	aga inggi nitar shinnjin aga niga i ma 2001 i 1004 ili shina qara qara ili shina sh	ter an errormanningsveggerinder i destrikkringer filde i desvikkringer i ster i se i i vid filmbrese	- miles divinada metagantian ett 1900-raina agan anen i genameti mala aratikan dipageus det ez e ez	THE REPORT OF THE PERSON NAMED ASSESSMENT AS		20,021.00	28,322.4	- 16.4	28,306.0	19.150	1478.1	(35,918.1)		-21.6	35,896.5	24.510	1464.6
9/29	9 (1)						The state of the s	The State of the S	(39,582.4)		39,582.4	27.125	1450 75						720296
		2)						The state of the s	antaniski sambingili va sebi i radion gjerojejeni metej sejin, nap i - sen , sebi - sebi i sema saja .	(40,027.5)	The control of the co	40,027.5		1459.3						
		3)							· ·	(40,329.0)		40,329.0	27.450	1464.8* 1476.1					a de la companya del la companya de	
	(4)		ojeht 40- dunamaginaminus; me dilikulanga dipadipadipadi		and the second s				(41,862.6)		41,862.6	28.410	1473.5						
	(5)						And the state of t		(42,575.2)	TO BE STATE OF THE PARTY OF THE	42,575.2		1468.9						
		6)								(42,575.2) (48,947.9)	alan a Bademille di direccidente di Artenigo codi en glig, alpun nagi conspire spipe spipe secon	42,947.9	29.110	1475.3	and modern size. The specialistic objects are substantially assessed and specialist of the specialist					
10/	8 (and the second s	Вушавар маке од пред на Маленда, гран, приме кустин текстрациявания пред пред на пред на пред на пред на пред н	(19,692.3)	- 30.0	19,662,3	13.300	1470 4						
	AND DESCRIPTION OF THE PARTY NAMED IN	2)								(21,149.8)	- 30.0	21,119.8	14.540	1478.4 1472.1	SE PAR					
		3)								(23,014.9	- 30.0	22,984.9	15.590	3474 9	55,327.3	(55,327.3)	25.6	55,301.7	37.580	1471.6
		4)	gygine eyskiriddir regeredd a sjor sylleniad reddig a 1800-1900 redd ei sei sairenniad annad		Bird Mindistrator and deviation and anti-production of the section				to restore for existence or Million Whitelibera plan appropriate control of the days	(24,810.0)	- 30.0	24,760.0	16,680	1474.3 1485.6*	57,102.2	(57,102.2)	25.6	57,076,6	38.600	1478.7
10/	20	(1)	out of success of the first voter space, and manufage against the Attention against the second of th		an da salah yakeedhaan yakeen vidakeeli san agestatuda ahasad ilika kaleedhaan ha Mara san agaa salahaan san ar san ar san ar san agestatuda ahasad ilika da san ar san ar san ar san ar san ar	and the state of t		agen an iran i ar ""	24,376.2	24,373.7		84,373.7		<u></u>		enter- v redfelden ette væle væle på - egende vilke. Mindell Mindellager v en	ikan melan kelipantah dianan dianan dianan dipika sepika sepika sebagai sebagai sebagai melan melanggan sebagai sebaga			
-	_ +	(z)		(67,280.6)	and a contract to the contract of the contract	6F 30.6	45.525	1477.9	25,231.0	25,226.5		25,229.5				7100		The state of the s	THE PARTY OF THE P	
., —		(3)	And the second s		and hand when the contraction with the contraction of the contraction	64,097.5	f 1		26,312.6	26,310.0		25,228.5 26,310.0	17.025	31.9 37.8*						
		(4)	(64,097.5	(64,097.5)			43.215 41.545	1483.8 1483.2	27.971.6	26,310.0 27,968.9 30,191.6		27,968.9	17.925 140 18.885 144	M 2						
		[5]		(61,621.2)		61,621.2	41-545	1483.2	30,194.6	30,191.5		30,191.6	20.395 144							
						· ·			•				1 20 1/20	~***						

NOTE: * Velocities rejected.

Value adopted by these valueity tests was 1476.0

FIXES FROM WHICH VELOCITY WAS DETERMINED.

DATE	POSITION	STATION	LATITUDE	LONGITUDE
6/17	178	KVD	47-22.2	124-30.9
$\frac{6}{17}$	179	KVD	47-20.5	124-28.9
6/17	180	KVD	47-20.4	124-28.6
6/25	7:05	KVD	47-25.6	124-25.0
6/25	7:08	K V D	47-25.5	124-25.1
6/25	7:10	KVD	47-25.3	124-25.1
6/25	7:27	KVD	47-23.1	124-25.5
8/4	1:354	KVD, KVB	48-09.9	124-53.9
8/4	1:39 \frac{3}{2}	KVB	48-09.5	124-54.7
8/4	1:44 1	KVD, KVH	48-09.15	124-55.5
8/4	1:50	KVD K V H	48-08.6	124-56.5
9/22	1	KVH	48-09.5	124-51.4
9/22	2.	KV B	48-09.7	124-52.4
9/22	3	KVB,KVH	48-09.9	124-53.3
9/22	4	KVH	48-10.2	124-64.3
9/22	5	KVH	48-10.2	124-55.9
9/29	3	КVН	48-03.4	124-57.6
9/29	4	KVH	48-01.8	124-54.4
9/29	6	KVH	48-00.9	124-52.9
10/8	1	KVH	48-20.0	124-59.7
10/8	2	KVH,KVB	48-20.3	125-01.0
<u>10/8</u>	3	KVH, KVB	48-20.7	125-02.8
10/10	1	KVH	48-12.7	124-55.9
10/10	2	KVD,KVH	48-12.1	124-55.8
10/10	4	KVD, KVH	48-10.2	124-55.5
10/10	5	KVD, KVH	48-08.8	124-55.2

LOCATION OF HYDROPHONES

Number I Location of KVD	Latitude 470-40' 352.8
June 5, 1930	Longitude1240-29' 1095.8
Number II, Location of KVD	Latitude 47°-40° 426.0
July 3, 1930	Longitude 124°-29° 1071.8
Number III, Location of KVD	Latitude 47°-40° 34.0
July 17, 1930	Longitude 124°-30° 296.6
Number IV, Location of KVD	Latitude 470-40' 112.0
Sept. 8, 1930	Longitude 1240-30' 352.0
Number V, Location of KVD	Latitude 47°-40° 157.2
Oct. 3, 1930	Longitude 124°-30° 357.0
Fixes and location of hydrophone of Stascaled from Smooth Sheet No. 41.	tion KVD were plotted on and
Number L, Location of KVB	Latitude 470-54' 154.2
July 10, 1930	Longitude 1240-39' 957.9
Number II, Location Of KVB	Latitude 47°-53' 1732.0
Oct. 5, 1930	Longitude 124°-39' 1146.2
Fixes and location of hydrophone of stascaled from Smooth Sheet No. 23.	tion KVB were plotted on and
Number I, Location KVH,	Latitude 48°-23' 403.2
August 2,1930	Longitude 124°-44' 174.6
Number II, Location of KVH,	Latitude 48°-23' 790.5
August 24, 1930	Longitude 124°-44' 637.8
Number III, Location of KVH,	Latitude 480-23' 792.0
Sept. 11, 1930	Longitude 1240-44' 637.8

Fixes and location of hydrophone at Station KVH were plotted and scaled from Smooth Sheet No. 43.

R.A.R. Chronology for Station KVD.

June 5,	Layed magnetophone and cable and established station. (See Lag Book, Page 155 for location of magnetophone.
June 16,	Velocity tests (Fixes and time in Lag Book, Page 3).
June 17,	Velocity tests (Fixes and time in Lag Book, Page 7).
June 25,	Velocity tests (Fixes in Lag Book, Page 8; time Page 11)
July 2 & 3,	Repairs to magnetophone (Position angles of KVD No. 2 on Page 156 of Lag Book).
July 17,	Replaced magnetophone (Position KVD No. 3 on Page 156 of Lag Book).
August 4,	Velocity tests (Page 28 - 29 of Lag Book).
September 1,	The instructions to operator regarding operation of relay without manual control effective in afternoon.
September 8,	Replaced magnetophone (Position of KVD No. 4 on Page 156 of Lag Book).
October 3,	Inspected magnetophone (Position of KVD No. 5 on Page 161 of Lag Book).
October 10,	Velocity tests (Fixes on Page 85 - 87 of Lag Book).

R.A.R. Chronology for Station KVB.

July 10,	Established station, magnetophone planted (Position				
August 1	angles on Page 157 of Lag Book). Operator Darton retieved De Gens				
August 4,	Velocity tests (pages 28 - 29 Lag Book).				
September 3,	The instruction to operator regarding operation with- out manual controll effective.				
September 22,	Velocity tests (Fixes on Page 63 of Lag Book).				
October 5,	Magnetophone changed (Position on Page 160 of Lag Book)				
October 8,	Velocity tests (Fixes on Pages 76 - 79 of Lag Book).				

R.A.R. Chronology for Station KVH.

August 2,	Magnetophone planted and station established (Position of KVH No. I on Page 158 of Lag Book).
August 24,	Replaced magnetophone (Position KVH No. 2, Page 159 of Lag Book).
September 3,	The instruction to operator regarding operation without manual control effective.
September 11,	Replaced magnetophone (Position of KVH No. 3, on Page 159 of Lag Book).
September 22,	Velocity tests (Fixes on Page 63, Lag Book). Time on 64 and 65.
September 29,	Velocity tests, (Fixes on Pages 71 - 72, Time on Pages
October 8,	70 - 73.(Velocity tests, (Fixes on Pages 76 - 79 of Lag Book)
October 10,	Velocity tests, (Fixes on Pages 85 - 87 of Lag Book).

80

June 15, 1931

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in 7 volumes of sounding records for

HYDROGRAPHIC SHEET 5114

Locality Offshore, Sealton Rock to Cape Flattery, Washington Coast

Chief of Party: K. T. Adams, in 1930

Plane of reference is mean lower low water, reading

1.2 ft. on tide staff at Destruction Island

17.2 ft. below B. M. 1 (1930)

3.8 ft. on tide staff at La Push

17.2 ft. below B. M. 4

Condition of records satisfactory except as checked below:

- 1. Locality and sublocality of survey omitted.
- 2. Month and day of month omitted.
- 3. Time meridian not given at beginning of day's work.
- 4. Time (whether A.M. or P.M.) not given at beginning of day's work.
- 5. Soundings (whether in feet or fathoms) not clearly shown in record.
- 6. Leadline correction entered in wrong column.
- 7. Field reductions entered in "Office" column.
- 8. Location of tide gauge not given at beginning of day's work.
- 9. Leadline corrections not clearly stated.
- 10. Kind of sounding tube used not stated.
- 11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
- 12. Legibility of record could be improved.
- 13. Remarks.

Chief. Division of Tides and Currents.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4-5/14

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	/848
Mumber of positions checked	489
Number of positions revised	6
Number of soundings recorded	9065
Number of soundings revised	48
Number of signals erroneously	_
plotted or transferred	None

Date: (13, 1931	
Cartographer: J. Heming	
cartographer	•

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO NO. 82-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

SECTION OF FIELD RECORDS

Review of Hydrographic Sheet No. 5114

Sealion Rock to Cape Flattery (Offshore)

Surveyed in 1930 Instructions dated April 16, 1930

FATHOMETER

Chief of Party, K. T. Adams
Surveyed by K. T. A.
Protracted by H. A. Karo
Soundings plotted by H. J. Healy, J. C. Mathisson
Verified and inked by J. Fleming.

1. The sounding volumes and bomb records are satisfactory but attention is invited to the statement in the last paragraph, page 2 of the descriptive report relative to "dead reckoning".

"Dead reckoning" according to general instructions, involves, among other things, the use of patent logs and the preparation of a dead reckoning abstract. The use or preparation of either of these is not indicated anywhere in the records submitted, except in the descriptive report.

- (a) Near the end of the descriptive report, "Chronology for E Stations" reference is made to the fixes for velocity tests, being recorded in the "Lag Book." The only reference to lags, aside from their use, is the note, on page 5, vol. 8, bomb record, which gives the lags for two stations.
- 2. The plan, character and extent of the survey satisfy both general and specific instructions except that the 50 fm. bank in lat. 48°16', long.125°20' should have been investigated more closely.
- 3. Crossings The sounding line crossings are considered satisfactory, except between 15-16 EE, 48°16', 126°18', where the soundings appear too shoal when compared with two crossings of two different days. The soundings between 15-16 EE have been omitted in the office.
- 4. The field plotting was excellent and mone of the work had to be done over.
- 5. Depth curves The usual depth curves can be completely drawn.

- 6. <u>Junctions</u> Junction with contemporary surveys H. 5068, 5119, 5111 is satisfactory and the soundings are in good agreement.
- (a) Junction on the south with H. 4775, H. 4735 (year 1927) is satisfactory and the soundings agree well.
- 7. Comparison with previous surveys Comparison with H. 2202, survey of 1894, shows an average difference in depth of about 5 fms., the old survey showing greater depth.
- H. 2203 shows the same characteristic difference but to a lesser extent.
- It is thought that the dead reckoning in the old work may be responsible for the evident displacement of the lines in the old surveys.
- (b) Observe the 131 fms., 47°26', 124°52'.5, H. 2202. No line adjustment will alter the indicative aspect in relation to surrounding soundings.
- (c) There are no C.and G.S. surveys of the area to the northwest of 2203.
- (d) The 45, 48, 49 fm. soundings defining the bank in 48°18', 125°15' have been traced to chart 6400 (discontinued). The sources are believed to be the U.S.F.C. ALBATROSS and BA. 1911, according to the history of chart 6102.
- (e) The position of the bank on chart 6102 is about 2 miles northeast of what is believed to be the correct position, the approximate center of which is the 50 fms. (paragraph 2, page 2) in this survey.
- (f) A small bank with 71 fms. is noted in the north arm of the valley, 48°12', 125°14'.
- (g) Chart 6102 shows a 240 fms. where 600 fms. is now indicated in 48°09', 125°52'.
- (h) The 235 fm. northeast of the above sounding is from B.A. 1911 but that chart shows it to be "No depth." It is thought that the 240 fms. belongs on the slope 3 miles to the north.
- (i) A pronounced indication is observed in 48°12°, 126°29° -- 1074 fms.
- (j) The soundings in the western extension of the 200 fm. curve, 48° 07', 125°43', indicate an uncertain condition.
- 8. Slopes Steep slopes are observed at three points, namely
- (a) The west flank of the bank discovered in 48°12', 126°18' 30° slope.
- (b) The point of the 200 fm. curve, 48°07', 125°47', 33° slope.
- (c) The point of the 200 fm. curve, 47°27', 124°55', 36° slope.

Correction for these slopes is not recommended (Spec. Pub. 165, page 13), at this scale.

- The bank in 48°12', 126°18' is thought to be satisfactorily defined by the economic "X" development.
- (b) A distinctive feature of the formation just noted is the deep valley on the east side. This valley appears to be about 8 miles long and extends in a NE X E direction.
- 10. In 48°05', 125°05' a small bank with 66 fms. is noted.
- 11. A finger-like formation pointing southwest and having 109 fms. as an indication is noted in 47°47', 123°06'. An old blue print shows this area to be a halibut habitat.
- 12. No further surveying is required in this area.
- 13. The entire work is considered excellent.
- 14. Recommendations It is recommended that this survey supersede all other surveys in this area.

The above recommendation is based upon the belief that the control and sounding methods used give a correlation between the several features characteristic of the area and a uniform accuracy in depth determination, not obtainable in the old methods under which the previous surveys were executed.

In recommending the above, a slight exception may be noted. bottom characteristics be considered (as a rule) unchangeable in most open water areas, it seems feasible to utilize those shown on old surveys to supplement new surveys where a dearth of such information exists. Considering, of course, the application of the practice to a given area common to any two sheets a slight displacement from the true position would not affect its value in the new work, the transfers should, however, be made in another color ink. Accordingly, several such characteristics have been transferred (in red) from H. 2202, 2203.

Referring again to the 131 fms. sounding from H. 2202, it is desired to point out that this sounding (in its adjusted position) falls close to the reported position of the 22 fm. sounding (Chart Division letter 338 of 1927) according to the "dead reckoning" (blue print 21312). The above circumstance warrants the recommendation that the doubtful area be examined somewhat closely in the near future with a view to removing the uncertainty regarding the true conditions.

15. Reviewed by J. Fleming

Approved

A. M. Sobieralski

Chief Section Field Records

Sheet inspected by A.L. Shalowitz.

The transfer of the bottom characteristics in red from the old survey and the retention of the 131 fm. sounding in its adjusted position from H.2202 have been made at my suggestion and are hereby approved. The other recommendations noted by the reviewer are fully concurred in.

A.L.S.

Approved:

See previous fogs.
Chief, Section of Field Records

Chief, Section of Field Work

NAUTICAL CHARTS BRANCH

SURVEY NO. <u>5114</u>

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6/24/46	5022	Pisegari	-Before After Verification and Review
			Before After Verification and Review
	•		Before After Verification and Review
		·	Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1